

Claims are listed as follows:

Claims 1-16 (Canceled)

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Claims 17-22 (Canceled).

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Claims 23-27 (Canceled).

(New) In a signal amplifying circuit system for a charge coupled device camera the improvement comprising;

a first automatic gain control auxiliary amplifying circuit (m₁) having a low amplification degree and high signal to noise ratio; a second separate automatic gain control auxiliary amplifying circuit (m₂) having a high amplification degree and a low signal to noise ratio that is less than about the minimum signal to noise ratio of said auxiliary amplifying circuit with a high signal to noise ratio;

a detector for detecting a change of object illumination; and,

a switch activated by said detector for switching from said first automatic gain control auxiliary amplifying circuit (m_1) having a low amplification degree and high signal to noise ratio to said second separate automatic gain control auxiliary amplifying circuit (m_2) having a high amplification degree and a low signal to noise ratio when said object illumination produces a signal-to-noise ratio that is less than the minimum signal to



noise ratio of said first automatic gain control auxiliary amplifying circuit (m,) with said high signal to noise ratio;

whereby said charge coupled device camera is switched to said second separate automatic gain control auxiliary amplifying circuit (m_2) having a high amplification degree when ambient illumination of said object is extremely low thereby substantially broadening the range of light levels suitable for photographs by said charged coupled device camera.

(New) The signal amplifying circuit system according to Claim 25 in which said signal to noise ratio of said second separate automatic gain control auxiliary amplifying circuit (m₂) with a high amplification degree and low signal to noise ratio is a minimum signal to noise ratio that is greater than about 20 dB.

(New) The signal amplifying circuit system according to Claim 2 in which said second separate automatic gain control auxiliary amplifying circuit (m₂) having a high signal to noise ratio has a signal to noise ratio that is kept at greater than about 40 dB.

(New) The signal amplifying circuit system according to Claim of in which said detector is constructed to detect and activate said switch at light levels below about 0.02 lux at a signal to noise ratio above about 40 dB.



(New) The signal amplifying circuit system according to Claim of in which the light level for photographs are broadened to low light levels in the range of 0.01 lux to about 0.001 lux.

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